珠穆朗玛地区伞形科植物的分类学研究 TAXONOMIC AND FLORISTIC NOVELTIES IN CHINESE UMBELLIFERAE FROM QOMOLANGMA REGIONS (XIZANG, THE HIMALAYAS)

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Abstract Five species new for Chinese flora have been shown on the basis of the gatherings from northern slopes of Qomolangma Feng (Everest Mt.). They belong to the genera *Physos permopsis*, *Pleuros permum*, *Pim pinella*, and *Schulzia*. A new genus, *Oreocomopsis* and its new species, *O. xizangensis*, have been described. Critical comments on these and some other South Xizang Umbelliferae are presented.

Key words Umbelliferae; Xizang; Oreocomopsis; Physospermopsis; Pleurospermum; Pimpinella; Schulzia; Floristic records

In August~October, 1991, a joint Chinese-Soviet glaciological expedition investigated the northern slopes of Qomolangma Feng in the Himalayas on elevations 4300~6100 m s. l. Being a member of the expedition, Dr. Arkadij A. Tishkov collected a lot of herbarium sheets, among them there is a small set of interesting plants of the Umbelliferae, partly appearing to be new species for Chinese flora.

Now, when three volumes of the critical treatment of Chinese Umbelliferae have been published, and the edition of "Flora of China" (in English) is in progress under the Chinese-American project, it is clear that China possesses a rich set of the Umbelliferae (over 550 species, including numerous endemics). In particular, there are 39 genera and $108 \sim 110$ species of the family in Xizang (C. Y. Wu, 1986; Shan et al., 1980). The evaluation of Chinese Umbelliferae has not been finished and the discovery of numerous new taxa in recent years allows to admit that there are a lot of undescribed taxa in it.

The most plant gatherings and vegetation study were made in following places: Rongbuk glacier and Rongbuk valley near Qomolangma Feng, $5100 \sim 5800$ m s. l.;

Rongbuk Temple, 5000 m s. l., Tingri and its vicinities, $4300 \sim 4800$ m s. l., intermountain hollow; Mt. Xixabangma, glaciers of N (August) and SE (September) slopes, $4600 \sim 6000$ m s. l., Nyalam and its vicinities, $4100 \sim 5100$ m s. l., Puqu valley, S and E slopes; Peiqu lake, deserts and steppes near lake, $4580 \sim 5000$ m s. l.

The dominant types of vegetation in the region of investigation are subalpine steppes and shrubs (Juniperus, Dasiphora, Rhododendron), high-mountain deserts with Ephedra gerardiana, alpine meadows with Leontopodium spp., Gentiana spp., Poa spp., Carex spp., Kobresia spp., and nival communities with Saxifraga, Saussurea, and Primula species.

The region of the investigations of the above mentioned expedition is near the China-Nepal border. This is a rather popular place for botanical collections (see, for instance, Huang et al., 1988). Some Umbelliferae—Heracleum nyalamense Shan et T. S. Wang, Pachypleurum nyalamense H. T. Chang et Shan, Bupleurum alatum Shan et Sheh, Cortiella caespitosa Shan et Sheh and other have their type localities in Qomolangma Fengregion. The other were described from the neighbouring part of Nepal.

While checking Tishkov's collections, we naturally compared them in critical cases with the Umbelliferae treatments for Nepal (Cannon, 1979) and India (Mukherjee, 1978). Especially valuable information has been received from the critical study of Himalayan (mostly Nepalense) Umbels by Michel A. Farille (Farille, 1984; Farille *et al.*, 1985, 1984). This is no wonder because he investigated the Himalayan plants in Nepal, partly in the same floristic region as northern Qomolangma Feng slopes.

The total number of Umbelliferae species collected by A. Tishkov in the Himalayas is 10. Only three of them—Sinodielsia thibetica, Pleurospermun hookeri var. thomsonii and Tongoloa achilleifolia (Pimpinella achilleifolia) are included in "Flora Reipublicae Popularis Sinicae" (Shan et al., 1992, 1985, 1979), the latter being added only in Supplementum (Pu et al., 1992). Two species were reduced (Trachydium subnudum) or included under a non-priority name (Pleurospermum apiolens). The remaining five species appear to be unknown for Chinese flora, including a new taxon.

This new species seems to be closely related to *Oreocome stelliphora*, described by A. M. Cauwet-Marc and M. A. Farille from adjacent part of Nepal. But we could not agree with the colleagues whose new species belongs to the rather critical genus *Oreocome* Edgew. (type: O. candolliana Edgew. = Cortia wallichiana (DC.) Leute), regarded by us as monotypic. As Cauwet-Marc & Farille's Nepalese species and our new one from Xizang show some essential differences from *Oreocome* s. str., including carpological ones, we propose here to separate them to a new genus under the name *Oreocomopsis*, thus emphasizing its similarity with *Oreocome*.

Oreocomopsis Pimenov et Kljuykov, gen nov.

Genus nostrum Oreocomae Edgew. simile est, sed involucri phyllis pinnatisectis (nec

nullis vel raro Paucis integris), involucelli phyllis linearibus vel filiformibus umbellulis duplotriplo longioribus, mericarpiis commissuris angustis (non latis), Parenchymate mesocarpii elignescente bene differt.

Plantae perennes, radicibus, palaribus, caulibus solitariis, foliis, biquadri-pinnatisectis, lobis ultimis foliorum lanceolatis vel rhomboideis, margine dentatis. Involucri phylla foliis caulinis similia, longe petiolata, laminis pinnatisectis vel raro integris. Involucelli phylla linearia vel filiformia, umbellulis duplo-triplo longiora, reflexa. Petala longe unguiculata, integra, apice acuminata et breviter incurva. Fructus ambitu ovales vel elongati, carpophoris ad basin bifidis. Stylopodia conica, stylodia reflexa, brevia. Mericarpia glabra, sectione transversali ambitu semiorbicularia vel vix dorso compressa, commissuris angustis, jugis prominentibus, alatis, omnibus aequalibus vel marginalibus latioribus. Vittae valleculares $(1) 2\sim 3$, commissurales $4\sim 6$. Endospermium ventre planum vel vix emarginatum.

Typus generis: O. xizangensis Pimenov et Kljuykov

Species duae: 1. O. xizangensis; 2. O. stelliphora (Cauwet-Marc et Farille) Pimenov et Kljuykov, comb. nov. (Oreocome stelliphora Cauwet-Marc et Farille in Candollea 40: 549. 1985.)

Distribution: China (Xizang); Nepal.

O. xizangensis Pimenov et Kljuykov, sp. nov.

Species nostra O. stelliphorae ex Nepalia valde similis, sed ab ea radiis, radiolis, involucri et involucelli phyllis rigidiuscule pilosis, umbellis multiradiatis ($12\sim26$ non $6\sim8$), dentibus calycinis nullis, mericarpiis dorso vix compressis, jugis marginalibus vix dilatatis differt.

Planta perennis, videtur polycarpica, $25\sim30$ cm alt., radice palari, incrassata, caule solitario, erecto, violaceo, basi $4\sim5$ mm in díam., residuis brunneis fibrosis petiolorum emortuorum anni precedentis dense vestito, inferne terete, apice vix costato. Folia radicalia longe petiolata, petiolis $8 \sim 10$ cm lg., sectione rotundatis, glabris, laminis ambitu rhomboideis, ad 12 cm lg. et lt., tri-quadri-pinnatisectis, segmentis primariis petiolulatis, terminalibus sessilibus, ambitu rhomboideis vel ovatis, $6 \sim 10$ mm lg., pinnatisectis vel margine dentatis vel lobatis. Folia caulina nulla vel pauca $(1 \sim 2)$, in parte caulis inferiora sita, radicalibus similia, sed petiolis vix abbreviatis, laminis diminutis, ambitu lanceolatis. Umbellae corymbosae, $6 \sim 10$ cm in diam., $12 \sim 26$ -radiatae, radiis fructificatione inaequilongis, $4\sim 9$ cm lg., involucri phyllis $6\sim 10$, radiis subaequilongis, longipetiolatis, laminis pinnatisectis vel bipinnatisectis. Umbellulae semiglobosae, densae, multiradiolatae, $50\sim60$ -florae, radiolis aequilongis, brevibus, ad 5 mm lg., complanatis, margine anguste alatis, involucelli phyllis numerosis filiformibus, apice integris vel bifidis, radiolis duplotriplo longioribus, reflexis. Radii, radioli, involucri involucellique phylla squamis et aculeolis rigidiusculis tecta. Dentes calycini nulli, petala sordido-violacea, 1. $2 \sim 2$. 3 mm lg., oblanceolata vel obovata, unguiculata. Mericarpia dorso vix compressa, ovoidea, 6~6. 5 mm lg., 3. $5\sim4$ mm lt., jugis dorsalibus anguste alatis, marginalibus latioribus, commissuris angustis. Exocarpium e cellulis minutis leptodermaticis, mesocarpium parenchymatosum e cellulis leptodermaticis, in partibus distalibus jugorum e cellulis aerenchymatis membranis vix lignescentibus, fissuratim porosis compositum. Endospermium ventre vix emarginatum.



Fig. 1 Oreocomopsis xizangensis Pimenov et Kljuykov

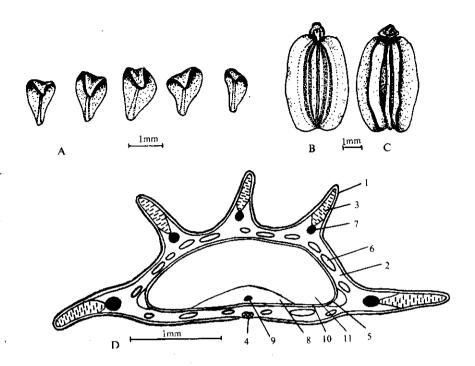


Fig. 2 Oreocomopsis xizangensis Pimenov et Kljuykov. A. Petals; B, C. mericarp (B. ventral view; C. dorsal view); D. TS of mericarp. 1. exocarp; 2. mesocarp; 3. aerenchyma; 4. sclerenchyma; 5. endocarp; 6. oil duct; 7. costal vascular bundle; 8. funicle; 9. funicular vascular bundle; 10. spermoderma; 11. endosperm

Xizang, China: alt. 5100~5300 m s. l., declivum septentrionale montis Qomolangma, prope monasterium Rongbuk, declivum shistosum moraenae recentis, 1991-09-10, A. Tischkov. s. n. (typus, MW, isotypus, E) (fig. 1, 2); ibid. prope pag. Nyalam, in valle fluvii Puqu, declivum occidentale, in rhododendreto, 1991-09-23, A. Tishkov s. n. (paratypus, MW)

Physospermopsis farillei P. K. Mukherjee & Constance in Edinb. J. Bot. 48(1): 41. 1991.

C. Nepal:Lamjung Himal, alt. 4000~4150 m, au pied sud de col de Namun, vers, 1981-09-26. M. A. Farille 81 604 (typus, E). Xizang, China: the Himalayas, near Nyalam, alt. 4100~4300 m s. l., valley of river Puqu, Rhododendrons' belt, SE slope, 1991-09-16, A. A. Tishkov s. n. (MW).

Distribution: Nepal; China(Xizang).

A newly described species, separated from the little-known and rather confused Himalayas P. hirsutula (C. B. Clarke) Farille basing on the lack of pubescence of leaf midribs and other plant parts. Unfortunately, as noted by Norman (1938) and Farille (1985), Trachydium hirsutulum C. B. Clarke, the basiconym of this species, was decribed on the grounds of extremely scanty incomplete material. We compared Tishkov's specimen

with the type sheet from Kew Herbarium ("Sikkim, Tungu, 3960~4270 m. October (?) Coll. J. D. Hooker"), and got convinced of their close resemblance in spite of the imperfection of type specimen. But it must be noted that the pubescence of leaf midribs, which was shown in protologue and even served as a basis of species name, is rather limited in the Chinese (Xizang) plant. M. Farille was the first to show the spread of the species in Nepal (high mountainous regions adjacent to Xizang); proceeding from his own collections, he enlarged and corrected the description of the species, transfered it to *Physospermopsis*. He did not say anything about the hairs on the leaf lamina surface. Though he was right to show the necessity of neotypification of *P. hirsutula*, Farille, however, did not indicate a neotype. Some of specimens cited by Farille have served as type materials (holotype and paratype) for the description of *P. farillei*. In addition, among paratypes, Mukherjee & Constance listed one sheet from Xizang ("Tibet side of Yak ha, Cooper 644"(E)). This first indicates that the species belong to Chinese flora, whereas *P. hirsutula* has never been showed that way.

Pleurospermum apiolens C. B. Clarke in Hook. f. Fl. Brit. India 2:705. 1879; Cannon in Hara & Williams, Enum. Flow. Pl. Nepal 2:188. 1979; Farille in Candollea 40:524. 1984. — P. apiolens var. nipaulensis Farille et Malla, 1. c. :524, fig. 9. 1984. — P. atropur pureum Fu & Ho in Fl. Reip. Pop. Sin. 55(1):298, 161, tabl. 82. 1979; Z. H. Pan in C. Y. Wu Fl. Xizang. 3:426. 1986.

"Hab. Sikkim, Reg. Alp., alt. 3353~4267 m, Coll. J. D. Hooker" (holotypus, K?, isotypus, P!, G!). **Xizang, China:** the Himalayas, near Nyalam, alt. 4100~4300 m s.l., valley of river Puqu, Rhododendrons' belt, SE slope, 1991-09-19, A. A. Tishkov s. n. (MW, E).

Distribution: Sikkim; Nepal; China (Xizang).

This species seems to be of wide distribution in Nepal & Indian (Sikkim) Himalayas, having never been indicated for the adjacent China. But a related species, P. pilosum C. B. Clarke ex H. Wolff, was described from S. Xizang (Chumbi =? Yadoang). The latter differs from P. apiolens mainly in leaf, stem and umbel pubescence, having also more dissected (bipinnatifid) laminas. But leaf dissection varies also within P. apiolens M. Farille (1985) described var. nipaulensis Farille & Malla, and the material from Nyalam corresponds to this variety. However, the type specimens of P. apiolens from Sikkim have the same pattern of leaf dissection; thus the separation of var. nipaulensis has to be superfluous. On the other hand, Fu & Ho (1979) described P. atropurpureum which is identical to our material; the type localities of the latter species seems to be Nyalam (Nelamu Hsien in protologue, Naylam in Pu's checklist). As a result, Tishkov's specimen appears to be a topotype of P. atropurpureum, and we put the species of Fu & Ho in the synonymy of P. apiolens. As to var. apiolens in Farille's treatment concerned, it is extremely variable in the leaf lamina form; some of specimens cited by Farille are indistinguishable in this

character from *P. pilosum*. Furthermore, there are some gatherings intermediate both in pubescence and in leaf dissection between these two taxa. Probably *P. pilosum* is only an infraspecific taxon of *P. apiolens*. If it is so, it is no surprise that Farille demonstrated the distribution of *P. apiolens* in "Chumbi", a classical location of *P. pilosum*. Unfortunately, Farille himself did not expressed his point of view on *P. pilosum*.

M. Farille referred P. apiolens to Pleurospermum subgen. Hymenolaena (DC). Drude p. p. We believe Hymenolaena to be independent genus related to Pleurospermum, though separate. The characters of P. apiolens do not correspond to those of Hymenolaena s. str. (H. candollei and its close relative).

Pleurospermum stellatum (D. Don) Benth. ex C. B. Clarke in Hook. f. Fl. Brit. Ind. 2:704. 1879; Mukherjee, Actes 2 Symp. Int. Ombell. (Perpignan):61. 1978; Cannon in Hara & Will ams, Enum. Flow. Pl. Nep. 2:189 1979; Farille et al. in Candollea, 40:525. 1985. — Selinum stellatum D. Don, Prodr. Fl. Nep. 185. 1825; DC. Prodr. 4:165. 1830. — Hymenolaena stellata (D. Don) Lindl. in Royle, Ill. Bot. Himal. Mts. 233. 1835. — H. govaniana. DC. l. c. 246. 1830. — Pleurospermum govanianum (DC.) Benth. ex C. B. Clarke, l. c. 702. 1879. Nasir, Fl. West Pakist. 20: 144, fig. 42. 1972.

Nepal: Hamilton. Specimen may be no longer extant (Cannon, 1979), Xizang, China, :Ichschangme, S slope, 1991-08-24, A. A. Tishkov s. n. (MW).

Distribution: Kashmir region; Kumaon; Nepal; China (Xizang) (here designated).

Without seeing a type material of P. stellatum (Selinum stellatum), which may have been lost, in synonymisation of the species we followed P. K. Mukherjee (1978), J. Cannon (1979) and M. Farille et al. (1985). In "FRPS" [vol. 55, pt. 1:146 (1979)] only P. govanianum var. bicolor P. Wolff is included, but this variety seems to be another species as we believe on the basis of type and other materials' examination. Thus P. stellatum (=P. govanianum P. stellatum (see Farille et al., 1985) would be rather doubtful.

Pleurospermum hookeri C. B. Clarke

One of widely distributed species both in Chinese and southernmore Himalayas. Tishkov's collection includes six gatherings of the species:

Xizang, China: N slope of Qomolangma Feng, near Rongbuk Temple, alt. 5100 ~ 5300 m s. l., stony slope of new moraine, 1991-09-10, A. A. Tishkov s. n. (MW); ibidem, near Peiqu lake, alt. 4600~4900 m. s. l., in the valley of river Lauch, the grass-sedge stony steppe, on the lake terrace, 1991-09-07, A. A. Tishkov s. n. (MW); ibidem, near Nyalam, alt. 4100~4300 m s. l., valley of river Puqu, Rhododendrons' belt, SE slope, 1991-09-19, A. A. Tishkov s. n. (MW); ibidem, near Mt. Xixiabangma, alt. 5400 m s. l., stony S slope, on fine earth, 1991-08-26, A. A. Tishkov s. n. (MW);

ibidem, N slope Mt. Xixiabangma, alt. 5450 m s. l., rockstream, along brook from the glacier, 1991-08-24, A. A. Tishkov s. n. (MW); ibidem, S slope Mt. Xixiabangma, alt 4450 m s. l., the bottom of valley, meadow with shrubs, among *Salix* and *Rhododendrn's*, 1991-09-22, A. A. Tishkov s. n. (MW).

Trachydium subnudum C. B. Clarke ex H. Wolff in Feddes Repert. 27:124. 1929.

T. verrucosum R. H. Shan et F. T. Pu in Fl. Reip. Pop. Sin. 55(1):299, 203, tab. 108. 1979. F. T. Pu in C. Y. Wu Fl. Xizang. 3:445. 1986.

Xizang, China; Kambajong, 1903-09. D. Prain s. n. (syntypus, K); ibid. 1903-09-07, F. E. Younghusband 310 (syntypus, B, probably destroyed); ibid., 1903-07-26. F. E. Younghusband. 140 (LE!); near Tingri, 4300 m s. l., 1991-08-19 A. A. Tishkov s. n. (MW).

Distribution: China (Sichuan, Xizang); India (Ladak?)

This species, described from China, was omitted in "FRPS", a related species, T. verrucosum Shan & Pu, being described as a new one. Then Prof. Pu ("List."") has synonymized the latter with T. subnudum, in spite of its verrucose vs. glaber (T. subnudum, see Wolff, 1927) fruit surface. Other characters are similar in both species (we examined a topotype ("toposyntype") of T. subnudum from LE), and the surface features, as is known, can vary within the species. Being on the stage of very young fruits, Tishkov's specimen has wart-like outgrowths, and it can be referred in strict sense to T. verrucosum and in broad sense to T. subnudum. T. lamondianum Farille from Nepal is a species, closely related, or probably identical with T. subnudum.

Tongoloa achilleifolia (DC.) Pimenov & Kljuykov in Feddes Repert. 102(5~6): 383. 1991. — Ptychotis achilleifolia DC. Prodr. 4: 109. 1830. — Pimpinella achilleifolia (DC.) C. B. Clarke in Hook. f. Fl. Brit. Ind. 2:684. 1879; F. T. Pu, M. L. Sheh, S. L. Liou in Fl. Reip. Pop. Sin. 55(3):242. 1992. — Vicatia achilleifolia (DC.) P. K. Mukherjee in Bull. Bot. Surv. Ind. 24(1~4):43. 1983. — Meeboldia achilleifolia (DC.) P. K. Mukherjee & Constance in Edinb. J. Bot. 48(1):44. 1991.

Nepalia ad Kamaon, Wallich 568 (typus, K; isotypus, LE!). Xizang, China; near Nyalam, S slop in the shrubs. 1991-09-17, A. A. Tishkov s. n. (MW).

Distribution: Kumaon; Nepal; Sikkim region; China (Xizang).

As is clear from synonymy summary, the taxonomic position of the species is rather disputable. The latest references are to *Tongoloa* (Pimenov *et al.*, 1991) and *Meeboldia* (Mukherjee & Constance, 1991).

Meeboldia is a little-known, even enigmatic genus, described by H. Wolff (1924) as monotypic with M. selinoides H. Wolff as generitype. The type material is now probably inavailable. Recently Mukherjee & Constance argued that Meeboldia was congeneric with Sinodielsia (type, S. yunnanensis); the first generic name has a priority against the latter. In this case, S. yunnanensis is to be included in Meeboldia; the corresponding combination

(ined.) has been proposed by Constance & Pu ("List."). Until now nobody has explicitly shown the place of the name M. selinoides within the reformed Meeboldia. As the species was described from the Himalayas (Kumaon, Naini), it can be identified in bitypic Meeboldia only with M. achilleifolia, in spite of some differences between Wolff's protologue and real characters of M. achilleifolia. But according to our multi-character classification (Pimenov et al., 1991) the latter is not closely related to S. yunnanensis, being nearer to Tongoloa species. If M. selinoides appears to be identical with Ptychotis achilleifolia, the latter being included in Tongoloa. Meeboldia's priority is not against Sinodielsia, but Tongoloa Then a lot of new nomenclatural combinations will be needed, the conservation of Tongoloa being probably preferable.

T. achillei folia is not a new species for Chinese flora, being included (sub Pimpinella achillei folia) in Supplementum of Vol. 55(3) (Pu et al., 1992).

Sinodielsia thibetica (H. Boissieu) Kljuykov & P. K. Mukherjee in Feddes Repert. 102(5~6):383. 1991—Vicatia thibetica H. Boissieu in Bull. Soc. Bot. Fr. 53:423. 1906.; C. C. Yuan in Fl. Reip. Pop. Sin. 55(1):185. 1979; ejusd. in C. Y. Wu Fl. Xizang. 3:438. 1986.— S. yunnanensis auct. non H. Wolff: Farille in Candollea 40(2): 520. 1985.

Sichuan, China: "Thibet oriental, province de Betang, Yargong. haies, lieux ombrages et forêts. 1903-08-06, Soulie 3205C" (typus, P!). Xizang, China: near Tingri, 4300 m s.l., 1991-08-19, A. A. Tishkov s. n. (MW).

Distribution: Nepal; China (Xizang, Yunnan, Sichuan)

The species regarded has been transferred from Vicatia to Sinodielsia as a result of multi-character comparative study of a set of asiatic taxa including the types of both Vicatia and Sinodielsia (Pimenov et al., 1991). Being similar in some characters (calyx teeth, endosperm form) with V. conii folia DC., it possesses more affinity with S. yunnanensis, those being of no less value for Umbelliferae taxonomy. The differences between V. thibetica and all other species of Vicatia include life-form, stem pubescence (all true Vicatias are completely glaber), leaf dissection (presence of long petiolules of basal segments vs. sessile segments in true Vicatias), form of terminal lobes, some characters in umbel structure. The difficulties in Meeboldia-Simokielsia nomenclature have been noted above; in any case S. thibetica is not close to Tongoloa (Vicatia, Meeboldia) achillei folia.

Pimpinella pimpinellisimulacrum (Farille et Malla) Farille in Candollea 40(2):554.

1985. — Similisinocarum pimpinellisimulacrum Farille et Malla in Bull. Soc. Bot. Fr.

131, Letter bot. 1984(1):70. 1984.

Nepal:haute vallée de la Kali Gandaki, "spigolo" au SEE de Muktinath (Muktinath-Range, a nord de l'Annapurna), dans la lande à Rhododendron chaméphytiques, alt. 4500 m, 1981-09-18, M. A. Farille 81 422 (typus, KATH; isotypus, P, BM). Xizang, China: the Himalayas, near Nyalam, 4100 ~ 4300 m s. l., valley of river Puqu,

Rhododendrons' belt, SE slope, 1991-09-16, A. A. Tishkov s. n. (MW).

Distribution: Nepal; China (Xizang) (here designated).

A little-known species with rather confusing taxonomy and nomenclature. It was described as one of two species of the new genus Similisinocarum Cauwet-Marc & Farille, being not a generitype (Farille et al., 1984). The genus has been typified by another Species, S. normanianum Cauwet-Marc & Farille. An year later M. Farille (Farille et al., 1985) drastically reformed his new taxon, transferring S. normanianum to Sinocarum, and S. pimpinellisimulacrum to Pimpinella. It is rather strange that Similisinocarum was retained as a subgenus of Pimpinella, but not Sinocarum. Thus Pimpinella subgen. Similisinocarum (Cauwet-Marc & Farille) Farille with S. pimpinellisimulacrum as type is illegitimate. If regarding this subgeneric name not as a combination, but as a new name, it is illegitimete too, having no Latin diagnosis.

Schulzia dissecta (C. B. Clarke) Norman. in J. Bot. (London) 76:231. 1938; P. K. Mukherjee in Actes 2 Symp. Int. Ombellif. :63. 1978. — Trachydium dissectum C. B. Clarke. in Hook. f. Fl. Brit. Ind. 2:672. 1879.

Sikkim: Tungu, alt. $3962 \sim 4878$ m, J. D. Hooker s. n. (typus, K!). Xizang, China: N slope of Mt., Qomolangma alt. $5100 \sim 5300$ m s. l., near Rongbuk Temple, stony slope of recent moraine 1991-09-10, A. A. Tischkov s. n. (MW).

Distribution: Nepal; Sikkim; Bhutan; China (Xizang) (here designated). The indication for Pakistan (Nasir, 1972) is mistaken.

The species with an unclear taxonomic position. Its treatment as Schulzia is rather formal. Moreover, C. Norman, when proposing the transfer of Trachydium dissectum to Schulzia, had at hand a material from NW Himalayas, not belonging to T. dissectum. M. Farille (notes in K) referred the species to Sinolim prichtia H. Wolff [S. dissecta (C. B. Clarke) Farille, comb. n. ined.]. The issue will be a matter of a further special publication of ours.

New for China, the species also has not showed until now for Nepal and Bhutan, although there are a lot of gatherings from these countries [for instance, Nepal, Karnali Zone, above Ravanodu Tas. 1969-08-25, L. M. Bishop (K); Rolmelling Valley, 1981-10-24, M. A. Farille 81 777 (E); Bhutan, Sonona, 1971-09-25, Ramesh bedi 1180 (K); Chu distr., Gangyuol, 1984-09-27, I. W. J. Sinklair, D. J. Long 5376 (E)]

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